DOCUMENT RESUME

ED 257 699 SO 016 446

AUTHOR Nelson, Linden L.; Slem, Charles M.
TITLE Attitudes about Arms Control and Effects of "The Day After."
PUB DATE Aug 84
NOTE 19p.; Paper presented at the Annual Meeting of the American Psychological Association (92nd, Toronto, Ontario, Canada, August 24-28, 1984). For related documents, see SO 016 444-445.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Attitude Change; Attitude Measures; *Disarmament; Higher Education; *Mass Media Effects; *Nuclear Warfare; Psychological Studies; Psychology; Social Science Research; *Student Attitudes; Undergraduate Students
IDENTIFIERS Day After (The)

ABSTRACT

An 18-item questionnaire was designed to investigate relationships between attitude towards arms control and beliefs about nuclear weapon effects, probability of war, Soviet goals, and the importance of nuclear arms superiority. Effects of the television movie, "The Day After," were also assessed by administering the questionnaire eight days before the movie was shown and ten days afterward. The subjects, 370 lower-division university students, were not informed of the study's purposes and were asked if they had seen the film after the second administration of the questionnaire. Results from the first questionnaire indicated that scores on arms control attitudes correlated with concern about nuclear arms superiority. Scores on opinions about Soviet arms control intentions, probability of nuclear war, and effects of nuclear war also correlated significantly with arms control attitudes. Only students who had seen the movie became significantly more anxious about nuclear war and more convinced about its harmful effects. However, the movie had no significant effect on attitude toward arms control because it neither addressed nor affected a number of other important components in the network of beliefs that influence attitude toward arms control. (Author/IS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED257699

ATTITUDES ABOUT ARMS CONTROL AND EFFECTS OF "THE DAY AFTER"

Linden L. Nelson and Charles M. Slem
Psychology and Human Development Department
California Polytechnic State University
San Luis Obispo

Presented at the American Psychological Association Convention
Toronto, Canada, August 1984
Symposium on Nuclear Issues and the Impact of "The Day After" - Edwin S. Zolik (Chair)

Abstract

An 18 item questionnaire was designed to investigate relationships between attitude toward arms control and beliefs about nuclear weapon effects, probability of war, Soviet goals, and the importance of nuclear arms superiority. Effects of the television movie "The Day After" were also assessed by administering the questionnaire eight days before the movie was shown and ten days after the movie.

The subjects, university students in lower division classes, were not informed of the study's purposes and were asked whether they had seen the movie after they completed the questionnaire the second time. At the first testing, 370 students participated. For students tested on both occasions, 185 had seen the entire film and 104 had seen none of it.

Data from the first administration of the questionnaire were subjected to correlational and regression analyses. Composite scores (four items collapsed) on arms control attitude correlated $r = -.42$ with composite scores (four itmes) on concern about nuclear arms superiority. Composite scores (two items each) on opinions about Soviet arms control intentions, probability of nuclear war, and effects of nuclear war also correlated significantly with arms control attitudes, all ps $< .001$.

Following the movie, only students who had seen the movie became significantly more anxious about nuclear war ($p < .001$) and more convinced about the harmful effects of nuclear war ($p = .002$). However, the movie had no significant effect on attitude toward arms control because it neither addressed nor affected a number of other important components in the network of beliefs which influence attitude toward arms control.

SP 016 446

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Linden L Nelson
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ATTITUDES ABOUT ARMS CONTROL AND EFFECTS OF "THE DAY AFTER"

Linden L. Nelson and Charles M. Slem
Psychology and Human Development Department
California Polytechnic State University
San Luis Obispo

The nuclear arms race and the resulting proliferation of possibilities for an unintentional or irrationally motivated nuclear holocaust is a serious threat to our world and our species. Ending the arms race, reducing the world's nuclear arsenals, and implementing other forms of nuclear arms control will require changes in the attitudes of superpower leaders and of citizens who elect and/or influence those leaders. The research reported here was an attempt to identify beliefs and attitudes that relate to people's support for or opposition to nuclear arms control, and to assess the effects of a drammatic TV movie about the consequences of a nuclear war on viewers' attitudes.

The theoretical basis for this research is the assumption of cognitive consistency theorists (Abelson et al., 1968) that attitudes tend to be associated with and supported by networks of related and psychologically consistent beliefs and values. We hypothesized that people's opinions about arms control would be related to and psychologically consistent with their beliefs about the importance of nuclear weapon superiority, Soviet military goals, Soviet arms control intentions, the probability of nuclear war, the effects of nuclear war, and with their perceived level of anxiety about the possibility of nuclear war. While there have been only a few attempts in the past to measure these relationships, they have been observed and discussed by a number of psychologists and political scientists.

Frank (1982), Deutsch (1983), and Lifton & Falk (1982) are among those who have suggested that competitive thinking and concern about nuclear weapon superiority are psychological factors related to opposition to arms control and to support for development of new weapons. Beliefs that nuclear superiority will improve deterrence, allow us to prevail in a nuclear war, or provide bargaining chips for advantageous negotiations seem to be psychologically inconsistent with proposals to end the arms race. Feshbach (1982) found that in a group of eighty undergraduates, 62% of those who opposed a nuclear weapons freeze believed that it was important for the U.S. to be the most powerful nation in the world (compared to 35%

among students who favored a nuclear freeze).

Further evidence for the relationship between concern about superiority-inferiority and opposition to arms control was discovered in a Newsweek On Campus (1982) survey of 507 students at 96 campuses nationwide. While 73% of students favored a nuclear freeze, only 48% did so when the question specified that a freeze would mean that "the Soviet Union would keep a nuclear advantage in some areas."

A number of psychologists (Bronfenbrenner, 1961; Frank, 1982; Osgood, 1981) have speculated about a relationship between perceiving the Soviets as an enemy and reluctance to negotiate with them for arms control. Connotations of the concept of "enemy" are psychologically inconsistent with the idea that the Soviets would agree to something that is in the best interests of the U.S. In a study with seventy-seven undergraduates, Larsen (1983) found a correlation of $r = .51$ ($p < .01$) between scores on a 12-item Attitudes Toward the Soviet Union scale and a 21-item Attitudes Toward Nuclear Disarmament scale.

There is historical evidence (Cox, 1982; Jönsson, 1979) of a connection between intensified enemy perceptions and lack of progress in arms control negotiations. Statements by political leaders may also be taken as evidence of this relationship. President Reagan, for example, as quoted by Associated Press, told an audience of evangelical leaders on March 8, 1983, that "I would agree to a freeze if you could get the Soviets to freeze their global desires."

Our hypotheses concerning relationships between arms control attitude, beliefs about the probability and consequences of nuclear war, and anxiety about the possibility of nuclear war were based on our assumption that being very concerned about the possibility of a catastrophic nuclear war is more psychologically consistent with favoring arms control than with opposing arms control. Tyler and McGraw (1983) found that worrying about nuclear war was related to behavior supporting arms control policies. Feshbach (1982), however, did not find a significant correlation between attitude toward a nuclear moratorium and either anxiety about the possibility of nuclear war or opinions about the outcome of nuclear war.

Unlike previous studies that have investigated correlates of arms control attitude, the research reported here examined all of the theoretically important correlates discussed above in the same study. We expected that this procedure would provide information about the relative strengths of these relationships.

Until "The Day After" was televised by the ABC Network on November 20, 1983, there had been little research on the effects of films on attitudes about nuclear war and nuclear weapon policies. Studies on effects of the film "Hiroshima-Nagasaki" (Granberg & Faye, 1972) and the film "The Last Epidemic" (Zweigenhaft, 1984) found that each of these films affected viewers beliefs about the consequences of nuclear war. At least eleven separate studies of the effects of "The Day After" were conducted by psychologists (Oskamp, 1984). Although these studies have not yet been published, a summary of unpublished reports (Oskamp, 1984) suggested that at least for undergraduate students, the movie produced increased worry about nuclear war and increased estimates of the catastrophic consequences of nuclear war. In contrast with these academic studies, a survey of a nationwide random sample of 928 viewers done by Smith, Berlin and

Associates (Schneider, 1983) found practically no changes among their respondents.

There is very little evidence in these studies suggesting that viewers' attitudes about nuclear arms control were significantly affected. One purpose of the study reported in this paper was to further investigate whether a film about the consequences of nuclear war would affect viewers' attitudes toward arms control as well as their feelings and beliefs about the consequences of nuclear war.

METHOD

Subjects

The 370 subjects were students in ten introductory psychology classes at California Polytechnic State University, San Luis Obispo. Forty-eight percent were male and 52% female. The median age was 20, and 90% of the subjects were in the 18 to 23 year old age range.

Nuclear Weapons Policies Questionnaire

An 18 item questionnaire (included in Appendix A) was constructed using items from a longer instrument that had been designed by the first author for a pilot study in July 1983. Each item was a statement to which subjects marked their degree of agreement (strongly agree, agree, disagree, strongly disagree, no opinion). Four items (numbered 3, 8, 12, 16) were designed to measure attitude toward arms control. Four other items (5, 9, 13, 17) were designed to measure concern about nuclear arms superiority. There were two items for measuring opinions concerning each of the following: effects of nuclear war (6, 10), probability of nuclear war (1, 14), Soviet arms control intentions (7, 15), and Soviet military goals (2, 11). One item (18) measured anxiety about the possibility of nuclear war, and one item (4) specifically assessed attitude toward arms control as contingent upon nuclear arms superiority.

Procedure

The Nuclear Weapons Policies Questionnaire was administered to all students in attendance during classes both before and after the telecast of the movie "The Day After" by the ABC Network on November 20, 1983. The first administration of the questionnaire occurred between November 9 and 15, an average of about eight days before the movie was shown. The second administration of the questionnaire occurred between November 29 and December 1, an average of about ten days after the movie was televised.

On a brief cover letter attached to the questionnaire (see Appendix A) subjects were asked to indicate their age, sex, and birthdate. This information was used by the authors to match together the two questionnaires and to permit a repeated measures analysis for subjects who completed the questionnaire both before and after the movie.

Subjects were not informed of the specific purposes of the study until after the second administration of the questionnaire. Immediately prior to completing the questionnaire for the second time, subjects were told:

> "This is the second phase of a study on arms race attitudes. When developing a new questionnaire, it is important to investigate the stability of the instrument by having participants respond to

the same questions on two occasions. It is likely that some of your answers will be the same, and some will be different, than the answers you gave several weeks ago. It is very important that you answer the questions honestly, and that you express your attitudes and opinions as they exist today. You will not be identified by name and your confidentiality will be protected. Birthdates will be used to match your results for the two questionnaires."

Following the second administration of the questionnaire, subjects were given an additional page of paper with a question about whether they had seen all, part of, or none of the TV movie "The Day After." After these questionnaires were collected, the purposes of the study were described and class discussion was encouraged.

Data Transformations and Analyses

Statistical analyses were computed using version 8.3 of SPSS: Statistical Package for the Social Sciences by Nie et al. (1975). Values were assigned to responses as follows: Strongly agree = 4, Agree = 3, Disagree = 2, Strongly disagree = 1. This scoring system was reversed for questionnaire items 2, 5, 6, 8, and 11-14. No opinion responses were treated as missing data. Composite scores for each subject were obtained by dividing the sum of scores on the relevant questionnaire items by the number of items used for the composite scores. The SPSS option for pairwise deletion of missing data was used for all analyses except for the multiple regression analyses where the listwise deletion option was used.

RESULTS

The analysis of results for the first administration of the questionnaire will be described first. The major purpose of this analysis is to describe the subjects' attitudes about arms control, particularly the relationships between attitude toward arms control and beliefs about nuclear war, Soviet goals, and the importance of nuclear arms superiority. Next, the results from the second administration of the questionnaire will be compared to those of the first in order to examine effects of the "The Day After."

Attitudes About Arms Control

There were 370 subjects who participated in the first administration of the questionnaire. Fifty percent of subjects believed (agree or strongly agree) that there would probably be a major nuclear war in the next thirty years if the arms race continues (item 1). Eighty-three percent thought that a nuclear war would probably result in death for at least half of the U.S. population (item 10). Only 18% believed that Soviet leaders will negotiate seriously for meaningful arms control (item 15), and 57% thought that the Soviets will not comply to any new treaties they might agree to (item 7).

Twenty-nine percent agreed with the statement that our ability to effectively deter the Soviets from attacking us with nuclear weapons requires that we have nuclear forces that are superior to theirs (item 17). Although 80% of subjects supported a nuclear freeze (item 3), only 40% did so when the question specified that a freeze would maintain a Soviet superiority in land based ICBMs (item 4).

Correlations Between Items Contributing to Composite Scores

Pearson correlations between the four questionnaire items contributing to the composite scores for attitude toward arms control ranged from r =.38 to .48 (see Table 1). Correlations between the four items contributing to the composite scores for concern about nuclear arms superiority ranged from r =.26 to .52 (see Table 2). The other composite scores were each derived from two items. The item numbers and the correlations between them are as follows: Soviet arms control intentions (7 and 15), r(256) =.45; Soviet military goals (2 and 11), r(281) =.40; war probability (1 and 14), r(320) =.70; war effects (6 and 10), r(325) =.18; all ps<.001.

Sex Differences in Mean Scores

Table 3 reports sex differences for mean composite scores and for anxiety about the possibility of nuclear war (item 18). The women believed that nuclear war was more probable (p = .014) and more potentially destructive (p = .001) than did the men. Women also reported more anxiety than men (p = .001) and less concern about the importance of nuclear weapon superiority (p = .049).

Correlates of Arms Control Attitude and Multiple Regression Analyses

For men and women, attitude toward arms control scores correlated significantly with scores on concern about superiority; with beliefs about war effects, war probability, and Soviet arms control intentions; and with anxiety about the possibility of nuclear war; all ps<.001 (Pearson correlations reported in Table 4, column 1).

Table 4 also presents the results of stepwise multiple regression analyses, for men and women separately, which consider attitude toward arms control as the dependent variable. For men, concern about superiority was the variable most highly correlated with attitude toward arms control. Beliefs about war effects and about war probability entered the regression equation at steps two and three, and each significantly increased the prediction of arms control attitude. These first three variables jointly explained 29% of the variance in the men's arms control attitude scores.

For women, belief about the probability of nuclear war was the best predictor of arms control attitude. Concern about superiority, belief about Soviet arms control intentions, and anxiety scores added significantly at steps 2, 3, and 4 to the regression equation. These four variables together accounted for 37% of the variance in the women's scores on attitude toward arms control.

Effects of "The Day After"

Among those who completed the questionnaire both before and after the

movie, 185 subjects reported that they had seen all of "The Day After" and 104 subjects reported that they had seen none of the movie. On the pre-movie questionnaire, subjects who later saw the movie did not differ significantly from subjects who did not see the movie on any of the measures.

The pre-movie and post-movie mean scores for subjects who saw the movie and for subjects who did not see the movie are reported in Table 5. The comparison of post-movie scores to pre-movie scores indicated that subjects who had seen the movie became significantly more anxious about the possibility of nuclear war ($p<.001$), more extreme in their beliefs about the catastrophic effects of nuclear war ($p = .002$), and more positive in their views of Soviet intentions for arms control ($p = .001$). These changes were significant for men and women, except that the change in perceptions of Soviet arms control intentions was significant for women only. There were no other significant changes for either men or women, and there were no significant changes in any of the pre to post scores for subjects who had not seen the movie.

Table 6 provides some additional descriptive information regarding the percent of subjects by condition who showed changes in their pre- to post-movie scores.

DISCUSSION

The results clearly support the hypothesis that people's opinions about arms control relate to their beliefs about Soviet arms control intentions, the probability of nuclear war, the effects of nuclear war, the importance of nuclear weapon superiority, and to their perceived level of anxiety about the possibility of nuclear war. The results of this study are very similar to the results of an unpublished pilot study by the first author, conducted in July 1983, which used a longer version of the same questionnaire and a slightly different response format. For the pilot study with 216 undergraduates at the same university, attitude toward arms control correlated with concern about superiority ($r = -.52$), beliefs about war probability ($r = .49$), beliefs about Soviet arms control intentions ($r = .46$), and beliefs about effects of nuclear war ($r = .24$), multiple $R = .68$, all $ps<.001$. In both studies, beliefs about Soviet military objectives did not correlate significantly with arms control attitude.

The relationship between concern about superiority and arms control attitude is particularly evident in the contrast between the results for questionnaire items 3 and 4. The percent of subjects supporting a nuclear weapons freeze dropped from 80% to 40% when the question specified that a freeze would maintain a Soviet superiority in land based ICBMs. This contrast also demonstrates the fragility of subjects' support for a nuclear freeze given the fact that the Soviets do maintain a superior ICBM force, while the U.S. is superior in other important aspects of nuclear weaponry (Cox, 1982).

Overall, the results suggest to us that people's attitudes toward arms

control are related to and supported by a network of psychologically consistent beliefs and values. Attempts to change public opinion about arms control are likely to be successful only if the persuaders' messages appropriately address the public's concerns about superiority, their beliefs about Soviet arms control intentions, and their estimates of the probability and effects of nuclear war. Research with groups more representative of the general public will be required before these conclusions can be generalized beyond undergraduate populations. Future studies should also further investigate additional variables that relate to arms control attitudes such as knowledge of relevant information, values concerning the well-being of children, and beliefs about the role of voters in determining nuclear weapon policies (Feshbach, Kandel, and Haist, 1984).

We recognize that correlational studies cannot prove whether changes in people's beliefs about the importance of superiority, for example, will lead to changes in attitude toward arms control. For that reason, it is desirable to conduct studies on the effects of various kinds of informational and persuasive messages on arms control attitudes. We expected that "The Day After" would carry a persuasive message that would increase viewers' concerns about the probability and effects of nuclear war, and as a result, would lead to more favorable attitudes toward arms control.

The results show that the movie did affect subjects' beliefs about the catastrophic consequences of nuclear war and did increase their perceived levels of anxiety about the possibility of nuclear war. Our women subjects also became more positive in their views of Soviet intentions for arms control. Whether these results can be generalized to groups other than university students is not yet clear (Oskamp, 1984). Since many of the subjects who saw the movie may also have seen the panel discussion that followed the movie on the ABC Network, we have no way of separating the effects of the movie from effects of the panel discussion. Still, the movie and/or panel discussion was an intervention that changed beliefs and anxieties about nuclear war for some viewers. These changes, however, did not appear to result in changes in viewers' opinions about arms control.

We speculate that "The Day After" did not influence attitude toward arms control because it did not sufficiently affect the network of beliefs that support people's opinions about arms control. The film did not address the issues of superiority as related to national security, Soviet arms control intentions, or the probability of nuclear war. Furthermore, the movie did not make an explicit connection between the potentially horrible consequences of nuclear war and options for preventing nuclear war through arms control. Future research should investigate the possibility that a film such as "The Day After," if used in combination with persuasive arguments for arms control, might enhance the effectiveness of those arguments for changing attitudes.

References

Abelson, R.P., Aronson, E., McGuire, W.J., Newcomb, T.M., Rosenberg, M.J., & Tannenbaum, P.H. (Eds.). (1968). Theories of Cognitive Consistency: A Sourcebook. Chicago: Rand McNally.

Bronfenbrenner, Urie. (1961). The mirror image in Soviet-American relations: a social psychologist's report. Journal of Social Issues. 17 (3), 45-56.

Cox, Arthur Macy. (1982). Russian Roulette: The Superpower Game. New York: Times Books.

Deutsch, Morton. (1983). The prevention of World War III: A psychological perspective. Political Psychology. 4 (1), 3-31.

Feshbach, Seymour. (1982). Resistance to nuclear disarmament: A psychological perspective. Unpublished paper presented at American Psychological Association meeting, Washington, D.C.

Feshbach, Seymour; Kandel, Elizabeth & Haist, Frank. (1984). Factors influencing attitudes towards nuclear armament-disarmament policies: The role of information and of the value placed on children. Unpublished paper. Psychology department, UCLA.

Frank, Jerome D. (1982). Sanity and Survival: Psychological Aspects of War and Peace. 2nd ed. New York: Random House. (first edition, 1967).

Granberg, Donald & Faye, Norman. (1972). Sensitizing people by making the abstract concrete: Study of the effect of "Hiroshima-Nagasaki." American Journal of Ortho-Psychiatry. 42 (5), 811-815.

Jönsson, Christer. (1979). Soviet Bargaining Behavior: The Nuclear Test Ban Case. New York: Columbia U. Press.

Larsen, Knud S. (1983). Nuclear disarmament: Attitudinal components and correlates. Unpublished paper. Oregon State University.

Lifton, Robert J. & Falk, Richard. (1982). Indefensible Weapons: The Political and Psychological Case Against Nuclearism. New York: Basic Books.

Newsweek. (1982). The nuclear issue. Newsweek on Campus. November.

Nie, N.H., Hull, C.H., Jenkins, J.G., Steinbrenner, K., & Bent, D.H. (1975). SPSS: Statistical Package for the Social Sciences. 2nd ed. NY: McGraw-Hill.

Osgood, Charles E. (1981). Psycho-social dynamics and the prospects for mankind. In E. Laszlo and D. Keys (eds.). Disarmament: The Human Factor. New York: Pergamon Press, 73-91.

Oskamp, Stuart. (1984). The media and nuclear war: Fallout from TV's "The

Day After." Unpublished paper. Claremont Graduate School, Claremont, Ca.

Schneider, W. (1983). ABC film has little impact, but public still wants a freeze. Los Angeles Times. November 27, Part IV, pp. 1,3.

Tyler, Tom R. and McGraw, Kathleen M. (1983). The threat of nuclear war: Risk interpretation and behavioral response. Journal of Social Issues. 39 (1), 25-40.

Zweigenhaft, Richard L. (1984). What do Americans know about nuclear weapons? Bulletin of the Atomic Scientists. 40 (2), 48-50.

10

NUCLEAR WEAPONS POLICIES QUESTIONNAIRE

Dear Participant:

Your voluntary and anonymous responses to this questionnaire will contribute to a scientific study of attitudes toward nuclear weapons policies in the United States. The validity of the study depends upon your serious consideration of the questions and the honesty of your answers. Thank you very much for your participation.

Sincerely,

Linden Nelson

Linden Nelson, Ph.D.
Psychology Department
California Polytechnic State University
San Luis Obispo

The following information is essential for purposes of this research. It will not be used to identify your name.

Please give your age here _____.

Please circle your sex: Male Female

Please give your birthdate: _____.
Month/Day/Year

INSTRUCTIONS: After each statement, please circle the response that best describes your degree of agreement or disagreement with the statement.

1. There will probably be a major nuclear war in the next thirty years if the arms race continues.
   Strongly agree Agree Disagree Strongly disagree No opinion

2. Soviet foreign policy is guided by the assumption that Soviet military action will be necessary in order to spread communism throughout the world.
   Strongly agree Agree Disagree Strongly disagree No opinion

3. The U.S. should negotiate with the U.S.S.R. for a verifiable freeze of all testing, production and deployment of nuclear weapons.
   Strongly agree Agree Disagree Strongly disagree No opinion

4. There should be a nuclear freeze even if it meant that the Soviet Union would maintain a land based intercontinental ballistic missile force that is superior to ours.
   Strongly agree Agree Disagree Strongly disagree No opinion

5. Although it is important to maintain an adequate deterrence against Soviet attack, it is not important whether we have more or less nuclear weapons than the Soviets.
   Strongly agree Agree Disagree Strongly disagree No opinion

6. The probability that a nuclear war would lead to the extinction of human beings is extremely low (less than one percent).
   Strongly agree Agree Disagree Strongly disagree No opinion

7. If the Soviets sign a new arms control treaty, they will comply to its requirements.
   Strongly agree Agree Disagree Strongly disagree No opinion

8. We should not sign any nuclear arms control treaty that would prevent us from research, development and testing of new weapon systems.
   Strongly agree Agree Disagree Strongly disagree No opinion

9. By developing a superiority in nuclear war fighting ability the U.S. would be able to exercise more control over Soviet behavior in the world.
   Strongly agree Agree Disagree Strongly disagree No opinion

10. A nuclear war between the U.S. and the U.S.S.R. would probably result in death for at least half of the U.S. population.
    Strongly agree Agree Disagree Strongly disagree No opinion

11. Only the threat of nuclear retaliation prevents the Soviet Union from using military force to control Western Europe and the Mideast.

Strongly agree Agree Disagree Strongly disagree No opinion

12. The U.S. Senate should not ratify the SALT II agreement that was signed by President Carter and Chairman Brezhnev.

Strongly agree Agree Disagree Strongly disagree No opinion

13. Nuclear superiority is not a meaningful concept given the present abilities of both the U.S. and U.S.S.R. to retaliate after absorbing a nuclear attack.

Strongly agree Agree Disagree Strongly disagree No opinion

14. Even if the arms race continues, it is very unlikely (less than 5% chance) that there will be an all out nuclear war within the next twenty years.

Strongly agree Agree Disagree Strongly disagree No opinion

15. The Soviet leaders will negotiate seriously for meaningful arms control because they want to end the nuclear arms race.

Strongly agree Agree Disagree Strongly disagree No opinion

16. It would be desirable to have a treaty to ban all testing of nuclear bombs.

Strongly agree Agree Disagree Strongly disagree No opinion

17. Our ability to effectively deter the Soviets from attacking us with nuclear weapons requires that we have nuclear forces that are superior to theirs.

Strongly agree Agree Disagree Strongly disagree No opinion

18. Please circle the response which best indicates how anxious you are about the possibility of a nuclear war.

Very anxious Quite anxious A little anxious Not at all anxious

TABLE 1

Pearson Correlations Between Items Contributing to Attitude Toward Arms Control Scores

Item Number	3	12	8
16	.48 (340)	.38 (153)	.46 (314)
3		.41 (157)	.47 (319)
12			.47 (151)

Note: Number in parentheses = n. All ps<.005.

TABLE 2

Pearson Correlations Between Items Contributing to Concern about Superiority Scores

Item Number	5	13	9
17	.52 (334)	.37 (313)	.50 (322)
5		.42 (315)	.[illegible] (324)
13			.26 (301)

Note: Number in parentheses = n. All ps<.005.

TABLE 3

Sex Comparisons for Mean Scores

	Men			Women			t	p
	Mean	SD	n	Mean	SD	n		
Arms Control Attitude	2.86	.64	175	2.97	.67	191	-1.60	.110
Concern about Superiority	2.19	.65	174	2.07	.59	194	1.97	.049
Soviet Arm Ctrl Intentions	2.12	.67	160	2.02	.55	164	1.49	.137
Soviety Military Goals	2.25	.69	167	2.32	.59	177	-1.09	.275
War Probability	2.45	.78	171	2.64	.65	187	-2.47	.014
War Effects	3.10	.67	173	3.32	.52	189	-3.44	.001
Anxiety	1.79	.89	176	2.12	.92	194	-3.50	.001

Note: All probabilities are two-tailed.

TABLE 4

Correlations with Arms Control Attitude and Stepwise Regression Analysis with Arms Control Attitude as Dependent Variable

	r	R Cum	R^2 Cum	F Cum	R^2 Inc	F Inc
			Men(N=146)			
Step 1 Concern about Superiority	-.47	.47	.22	40.5**		
2 War Effects	.33	.52	.27	26.9**	.05	10.6**
3 War Probability	.26	.54	.29	19.7**	.02	4.0*
4 Soviet Arm Ctrl Intentions	.36	.56	.31	15.8**	.02	3.3
5 Soviet Military Goals	.13	.56	.32	12.9**	.01	1.3
6 Anxiety	.28	.57	.32	10.9**	.00	.8
			Women(N=146)			
Step 1 War Probability	.40	.40	.16	26.7**		
2 Concern about Superiority	-.35	.50	.25	24.3**	.10	18.6**
3 Soviety Arm Ctrl Intentions	.31	.57	.33	22.8**	.07	15.0**
4 Anxiety	.32	.60	.37	20.3**	.04	9.1**
5 Soviety Military Goals	.04	.62	.38	17.2**	.01	3.3
6 War Effects	.23	.62	.39	14.7**	.01	1.9

Note: Cum = cumulative. Inc = incremental.
*p<.05. **p<.005.

TABLE 5

Pre- and Post-Movie Mean Scores and Comparisons*

		Subjects Who Saw Movie	Subjects Who Did Not See Movie
Arms Control Attitude	Pre Mean	2.92	2.91
	Post Mean	2.90	2.90
	p	.541	.903
	n	182	104
Concern about Superiority	Pre Mean	2.10	2.07
	Post Mean	2.09	2.04
	p	.872	.458
	n	185	102
Soviet Arm Ctrl Intentions	Pre Mean	2.10	2.04
	Post Mean	2.24	2.11
	p	.001	.246
	n	155	83
Soviet Military Goals	Pre Mean	2.30	2.26
	Post Mean	2.31	2.23
	p	.776	.665
	n	164	93
War Probability	Pre Mean	2.58	2.53
	Post Mean	2.58	2.53
	p	.889	1.00
	n	173	99
War Effects	Pre Mean	3.21	3.27
	Post Mean	3.36	3.33
	p	.002	.299
	n	178	101
Anxiety	Pre Mean	1.98	2.00
	Post Mean	2.15	2.00
	p	.000	1.00
	n	184	100

*All comparisons are t-tests for repeated measures, two-tailed probability.

TABLE 6

Percent of Subjects Changing from Pre- to Post-Movie

	Direction of Change	Subjects Who Saw Movie		Subjects Who Did Not See Movie	
Arms Control Attitude	Increase	34%	(66)	40%	(41)
	Decrease	39%	(71)	34%	(35)
	No change	25%	(45)	27%	(28)
Concern about Superiority	Increase	36%	(67)	34%	(35)
	Decrease	37%	(69)	43%	(44)
	No change	27%	(49)	23%	(23)
Soviet Arm Ctrl Intentions	Increase	34%	(52)	30%	(25)
	Decrease	16%	(24)	19%	(16)
	No change	51%	(79)	51%	(42)
Soviet Military Goals	Increase	29%	(48)	26%	(24)
	Decrease	28%	(46)	36%	(33)
	No change	43%	(70)	39%	(36)
War Probability	Increase	21%	(37)	29%	(29)
	Decrease	23%	(39)	27%	(27)
	No change	56%	(97)	43%	(43)
War Effects	Increase	40%	(71)	32%	(32)
	Decrease	23%	(40)	28%	(28)
	No change	38%	(67)	41%	(41)
Anxiety	Increase	20%	(36)	13%	(13)
	Decrease	7%	(13)	12%	(12)
	No change	73%	(135)	75%	(75)

Note: Number in parentheses = n.